KHARSONSKIY, G.P.

Clinical aspects of late complications following tuberculous meningitis in adults. Vrach.delo no.3:267-271 Mr '60.
(MIRA 13:6)

1. Odesskaya oblastnaya bol'nitsa i klinika nervnykh bolezney Odesskogo meditsinskogo instituta.
(MENINGES—TUBERCULOSIS)

OSTROVERSHENKO, V.T., inzh.; KHARSON, M.S., inzh.

Amplidynes with a special excitation winding. Vest. elektroprom. 34 no.7:54-57 Jl '63. (MIRA 16:8)

KHARSUN, M.S., mayor meditsinskoy sluzhby

Organization of first aid at a medical assembly station. Voen-med. zhur. no.1:60-63 Ja '56 (MLRA 10:5)
(MEDICINE, MILITARY AND NAVAL,
med. assembly stations, first aid serv.) (Rus)
(FIRST AID,
on military med. assembly stations) (Rus)

Kharsyev, F.

Irrigation Farming

Collective farm is ready to receive its water.
Kolkh. proiz. 12 no. 5, 19 .

Chairman, Kolkhoz im Molotov

Monthly List of Russian Accessions. Library of Congress. November 1952. Unclassified

KHART, G.

7513 KHART, G., I P. MAGIDOVICH

MORSKOY PUT' V INDIYU--RASSKAZ O PLAVANIYAKH I PODVIGAKH PORTUGAL'SKIKH. MOREKHODOV, A TAKZHE O ZHIZNI VREMENI. DONA VASKO DA GAMY, ADMIRALA, BITSE" KO OLYA INDII GRAFA VIDIGUYRY. PEREVOD S.ANGI M. V. BANNIKOVA VSTUPIT. STAT'YA I RED. I P. MAGIDOVICHA. M., IZD. INOSTR. LIT., 1954. 331 s.s. KART., 3L. KART. 23 SM (5R. 70K. V PER.--BIBLIOGR: S. 307-317.-- (55.3196) p

So: Knizhnaya Letopis (page 19) Vol. 7, 1955

KHART, S.E.

USSR / Plant Physiology. Mineral Nutrition H-3

Abs Jour : Ref Zhur - Biol., No 16, 25 Aug 57, No 68946

Author : Berr, G.O., Tonimoto, T., Khart, S.E., Forbs, A., Sadaoka, G., Eshton, F.M., Fain, D.Kh., Silva, D.A., Sloun, G.E.

Title : The Use of Radioisotopes on Sugar Plantations of the Hawaiian Islands.

Orig Pub : In the coll: Primenenie radioaktivnikh izotopov v promsti, meditsine i s. kh., M., AN SSSR, 1956, 677-694

Abstract : In experiments with sugar cane on a plant having 16 stalks, one leaf on one stalk was fed by $C^{14}O_2$; 44 hours after feeding, the stalk which received the extra feeding contained only 68.5% of all the assimilated C^{14}, the roots contained 17.2%, and in all the remaining stalks 14.3%, while ½ of this quantity was contained in one of the stalks and the remainder contained but small quantities, up to 0.003%. Six hours after feeding $C^{14}O_2$ the

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L 18910-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AT3001903 S/2912/62/000/000/0118/0121

53

AUTHOR: Khartanovich, A. Z.

TITLE: Effect of impurities on the form of crystals of chlorous ammonia (sal ammoniac) 27

SOURCE: Kristallizatsiya i fazovyye perekhody. Minsk, Izd-vo AN BSSR, 1962, 118-121

TOPIC TAGS: crystal, crystallization, crystallography, impurity, chlorous, ammonia, sal ammoniac, aqua ammonia, NH_4Cl, single crystal, $FeCl_2$, $CuSO_4$, $CuCl_2$

ABSTRACT: The paper describes an experimental investigation of the effect of additions of $FeCl_2$ and of supersaturation on the external shape of single crystals of NH_4Cl grown from aqueous solutions. Aqua ammonia with a prescribed amount of impurities was placed in a hermetically sealed crystallizer with a water-type thermostat. A primer was inserted and rotated; the sense of rotation was reversed every 30 sec. Supersaturation was achieved by cooling. $FeCl_2$ was present in quantities from 1.5 to 4.5 g/50 g NH_4Cl; the rate of decrease of temperature varied from 0.1 to 1°C per day. In the absence of such impurities, large single

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L 18910-63

ACCESSION NR: AT3001903

crystals cannot be grown from aqua ammonia; small irregular dendritic crystals precipitate instead. When $FeCl_2$ is added to the 50-g NH_4Cl solution, the following is observed: (1) With 1.5 g $FeCl_2$ at 1.0 to 0.3°/day, dendritic crystals form; at lower cooling rate, greater crystal density; at 0.2°/day, skeletal growth of crystals; at 0.1°/day, irregular cubic face formation with curved edges, bumps, and steps, growths, and irregularly oriented parasites; some twinning; opaque yellow-reddish crystals; (2) with 2.0 g $FeCl_2$ and 0.1°/day, straight-edged cubes form with plane but bumpy faces; semitransparent crystals; pale-yellow color; (3) with 2.5 $FeCl_2$ and 0.1°/day, straight-edged even-faced cubic crystals form, with few parasites and distortions; almost transparent; pale-yellow; at greater supersaturations and greater rates of cooling, return to uneven formations, then skeletal crystals, finally thickened dendrites; (4) with 3.0 g $FeCl_2$ and 0.1°/day, perfect cubic crystals, almost colorless and transparent; at greater supersaturation and higher rates of cooling, return to irregular formations of reddish-orange color; (5) with 3.5 g $FeCl_2$, too, similar characteristics as in (4); (6) with 4.0 and 4.5 g $FeCl_2$, perfect crystals are achieved even with small degrees of supersaturation, but they are smaller. Thus, the introduction of a suitable quantity of $FeCl_2$ permits the growth of purely cubically-shaped single crystals of sal ammoniac. Another test series was performed to determine the effect of additions of $CuSO_4 \cdot 5H_2O$ and $CuCl_2$ on the growth of single crystals of sal ammoniac from

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L 18910-63

ACCESSION NR: AT3001903

aqueous solutions. Bluish-green semitransparent crystals of tetragontrioctahedric shape were grown. The characteristics of the crystals versus the amount of addition varied as for $FeCl_2$, that is, the external shape changed from imperfect and curved edges to perfectly formed shining crystals, up to an optimal value for $CuSO_4 \cdot 5H_2O$ of 3.5 g; optimal for $CuCl_2$: 1.4 g/50 g NH_4Cl. Optimal cooling rate: 0.1°/day, which must be maintained constant. Orig. art. has 2 figures.

ASSOCIATION: 00

SUBMITTED: 000 DATE ACQ: 16Apr63 ENCL: 00

SUB CODE: CH, PH, MA NO REF SOV: 000 OTHER: 000

Card 3/3

MASLIY, Ivan Petrovich; SLEPUKHIN, Sergey Mikhaylovich; KHARTANOVICH, Ivan Yemel'yanovich; PERSHIN, B.F., inzh., retsenzent; PREDE, V.Yu., inzh., red.; KHITROVA, N.A., tekhn. red.

[Manual for workers in operations offices] Posobie rabotnikam tekhnicheskoi kontory. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 119 p. (MIRA 14:11)
(Railroads—Management)

ACC NR: AP7008288 SOURCE CODE: UR/0102/67/000/001/0058/0068

AUTHOR: Kozubovs'kyy, S. F. (Kiev)--Kozubovskiy, S. F. (Kiev); Khartebrot, H. (Kiev)
Khartebrot, G. (Kiev)

ORG: none

TITLE: Controlled delay device for binary signal

SOURCE: Avtomatyka, no. 1, 1967, 58-68

TOPIC TAGS: [redacted] delay circuit, pulse generator, shift register, signal processing

ABSTRACT: A contactless controlled delay device (CDD) for binary signals which uses a shift register and a clock-pulse generator with voltage-controlled variable pulse frequency is described. The device operates in the following manner: from the input of the device the applied continous signal is passed to the forming unit where it is quantisized in two equal signals which are converted to a binary signal. The binary signal is then passed through a shift register with a velocity which depends on the frequency of clock pulses and on the number of units in the register. The controlled delay device provides a wide range of time-delay variations (up to 1:2000) and good linearity of its characteristics. The circuits developed of the main units of the transistorized controlled-delay device

Card 1/2 UDC: none

ACC NR: AP7008288

are described in detail (shift register and clock-pulse generator with proportional as well as with inversely proportional frequency control). A polar plot of the frequency response of the developed device is given. Orig. art. has: 9 figures and 28 formuals. [GS]

SUB CODE: 09/ SUBM DATE: 8Sep66/ ORIG REF: 011/ OTH REF: 004

Card 2/2

L 02989-67 EWT(d)/EWP(1) IJP(c) BB/GG

ACC NR: AP6033625 SOURCE CODE: UR/0102/66/000/005/0063/0066

AUTHOR: Kozubovs'kyy, S. F. (Kiev); Khartebrot, H. (Kiev); Moroz, V. M. (Kiev)

ORG: none

47 B

TITLE: Digital readout 16

SOURCE: Avtomatyka, no. 5, 1966, 63-66

TOPIC TAGS: data readout, computer output unit, BINARY CODE

ABSTRACT: A simple and reliable four-digit readout unit has been developed. The unit includes a diode decoding matrix for translating binary-coded decimal signals into decimal code and MTKh-90 cold-cathode thyratrons for driving an IN-1 display tube and number memorizing. Power consumption is only 1 w per digit at the rated voltage of 380 ± 100 v. During testing the device operated reliably even at voltages of 220 v—600 v. Orig. art. has: 3 figures.

SUB CODE: 09/ SUBM DATE: 02Apr66/ ORIG REF: 010/ ATD PRESS: 5099

KHARTEK, P. [Harteck, P.]; RIVS, R. [Reeves, R.]

New advances in the study of chemical reactions in the atmosphere. Usp. khim. 32 no.7:882-895 Jl '63.
(MIRA 16:8)

ARTOBOLEVSKIY, I.I.; VIL'DT, Ye.O.; GRODZENSKAYA, L.S.; GUDMAN, T.P.; LEVITSKIY, N.I.; KHARTENBERG, R.S.

Kinematics of mechanisms; German-English-Russian terminological dictionary. Teor. mash. i mekh. no.94/95:54-68 '63. (MIRA 16:11)

KHARTKE, K.V., inzh.

When was paper invented. Bum.prom. 33 no.10:23 O '58.
(Paper) (MIRA 11:11)

30464

17.1206
159440

S/138/61/000/011/006/007
A051/A126

AUTHORS: Dodonov, N. T., Khartke, K. V.

TITLE: Fibrous asbestos materials as a replacement for asbestos fabrics

PERIODICAL: Kauchuk i rezina, no. 11, 1961, 35 - 38

TEXT: The possibility of producing fibrous materials from non-textile types of asbestos to replace asbestos fabrics used in thermal insulations, and the possibility of producing asbomasticated rubbers from the latter, was confirmed by the authors. The heat-insulating capacity of the produced material - asbothermoinsul, exceeds the heat-insulating capacity of asbestos fabrics by more than a factor of 2. The fibrous material asboplast, used as filler in the production of asbomasticated rubbers, results in the production of articles having mechanical properties twice as great as articles produced from asbestos fabric. The work was conducted at the fabric-weaving laboratory of the All-Union Scientific Research and Designing and Technical Institute of Asbestos Commercial Articles (VNIIATI), and at the Laboratory of Commercial-type paper of the Leningrad Scientific Research Institute of the Cellulose and Paper Industry (TsNIIB). The ЦНИИБ(TsNIIB) pilot plant equipment, intended for the production of equistable long fibrous pa-

Card 1/3

Fibrous asbestos materials as a...

per by the dry method, was applied. The new material produced by the described method was based on non-textile types of asbestos and cotton glued together with an aqueous emulsion of thermoreactive silicon-organic resin. The physico-mechanical characteristics of the asbothermoinsul and asbestos fabric AT-7 are listed in Table 1. The asbomasticated rubbers were produced from asboplasts of a given composition according to the industrial procedure employed by electro-commercial industrial plants. The higher physico-mechanical characteristics of the asboplast, as compared to those of asboplasts produced from the AT-1 fabric, are explained by a more complete exploitation of the high mechanical properties of asbestos. Data obtained confirmed the expediency of introducing industrial production of asbothermoinsul and asboplast. The latter is considered to be cheaper. The All-Union Conference on Heat-Resistant Asbestos Fabrics (April 12, 1960) adopted a resolution for the immediate introduction of these materials in industry. There are 3 tables and 1 figure.

ASSOCIATIONS: Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorsko-tekhnologicheskiy institut asbestovykh tekhnicheskikh izdeliy, g. Yaroslavl' i Vsesoyuznyy nauchno-issledovatel'skiy institut tsellyuloznoy i bumazhnoy promyshlennosti, g. Leningrad (All-Union Scientific Research

Fibrous asbestos materials as a...

and Designing and Technical Institute of Asbestos Commercial Articles city of Yaroslavl', and the All-Union Scientific Research Institute of the Cellulose and Paper Industry, city of Leningrad)

Table 1. Physico-mechanical characteristics of asbestothermoinsul and asbestos fabric AT-7

Indices	Asbesto-thermoinsul	asbestos fabric AT-7 (GOST 6102-52)
volumetric weight, g/cm^3	0.58	0.58
thermal conductivity coefficient, kcal/m·hr·°C (at 100°)	0.06	0.14
losses during annealing at 700°C, for a period of 2 hrs, %	28.6	32.0
tensility in the initial state, kg/cm^2 . . .		
along the base	11.0	65.0
along the weft	11.0	40.0

Card 3/3

KHARTMAN, A.

Polish negative engraving layers. Geod. i kart. no.11:61-69 N '63. (MIRA 17:1)

KHARTMAN, P. [Hartman, P.]; GERTS, L.G. [translator]

Structural morphology of corundum. Zap.Vses.min.ob-va 91 no.6:672-682 '62. (MIRA 16:2)

1. Geologicheskiy i mineralogicheskiy institut Universiteta v Leydene, Gollandiya.
(Corundum crystals)

USSR/Physics - Pulse counter FD-2343

Card 1/1 Pub. 146 - 8/34

Author : Khartman, V. G.; Leont'yeva, I. N.; Sinyavskiy, A. P.; and Vasil'yev, L. V.

Title : Amplitude analyzer of pulses with electron-ray tube

Periodical : Zhur. eksp. i teor. fiz. 28, 699-705, Jun 1955

Abstract : The authors describe an analyzer of pulses with the use of an electron-ray tube. The device can classify into 20 channels pulses with amplitude up to 100 volts, with growth time greater than 0.1 microsecond, and with duration less than 30 microseconds. When the counting rate is 17,000 pulses/minute the omission constitutes about 1%. Stability of threshold of the channels is about 2%. They present the block schemes of the system and analyzer tube, a detailed circuit diagram forming the block, and photographs of the pulses. Four references, all n-USSR (W. Glenn, D. Watkins, E. Titterton).

Institution : -

Submitted : February 11, 1954

Card [illegible] Pub. 11[illegible] - 2/3

Periodical : Usp. fiz. nauk 65/4, 537-593, Apr 1958

Abstract : A table of nuclear moments with the [illegible] method and the [illegible] data given in Physical Abstracts [illegible], Nuclear Data, moments, published following [illegible], the Rock Series, and Hellwege. Codes for reading the tabulated data and the bibliographical (reference) list are explained. Four-hundred and sixty-five references.

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YESENSKI, B.[Jeszenszky, B.]; KHARTMANN, E.[Hartmann, E.]

Notes on the growth and mechanical properties of NaCl whisker crystals. Kristallografiia 7 no.3:433-436 My-Je '62. (MIRA 16:1)

1. Politekhnicheskiy institut stroitel'stva i transporta, Budapesht.

(Salt crystals)

KHARTMANN, K.; PASSET, B.V.; PAVLUSHENKO, I.S.

Determination of the optimal correlations of volumes of reactors of complete mixing in a cascade. Zhur. prikl. khim. 37 no. 4: 838-844 Ap '64. (MIRA 17:5)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

KAPTEANU, N.; PAUNT, B.V.

Use of continuous reactors for studying the kinetics of chemical processes. Zhur. prikl. khim. 37 no.12:2662-2668 D '64.
(MIRA 18:3)

L [illegible]/EWA(h) Pab/Pi-4

AP5004924

Hartmann, V.

[illegible]ernating- and direct-current voltage amplifier. [illegible]

[illegible]Byulleten' izobreteniy i tovarnykh znakov, [illegible]

voltage amplifier

[illegible]s Author Certificate presents an a[illegible]-voltage amplifier [illegible] signal modulation by means of a mechanical [illegible]mutator. The commu- [illegible] cascades with galvanic links and [illegible] feedback circuit (see [illegible] enclosure). To reduce zero drift and [illegible] amplification [illegible] a storage condenser is inserted [illegible] periodically chargeable amplified signal, discharged by a mechanical commutator. In the ampli- [illegible] a second storage condenser is inserted [illegible] measuring [illegible]. The condenser is discharged simultaneously [illegible] first commutator, [illegible]ting the measuring instrument during the [illegible]. Orig. art. has:

[illegible] none

KHARTONIK, A.A.

Case of isolated closed injury of the pancreas. Zdrav. Belor. 5 no.11:59 N '59. (MIRA 13:3)

1. Iz khirurgicheskogo otdeleniya Slonimskoy rayonnoy bol'nitsy.
(PANCREAS--WOUNDS AND INJURIES)

KHARTONIK, A.A.

Huge cyst of the mesentery of the small intestine. Zdrav.Belor. 6 no.2:60 F '60. (MIRA 13:6)

1. Iz khirurgicheskogo otdeleniya Slonimskoy raybol'nitsy (glavnyy vrach O.P. Viktorova).
(MESENTERY--DISEASES) (CYSTS)

KHARTONIK, A.A.

Rare case of mesenteric lymphadenitis. Zdrav. Belor. 6 no. 7:66 Je '60. (MIRA 13:8)

1. Iz khirurgicheskogo otdeleniya Slonimskoy raybol'nitsy (glavnyy vrach O.P. Viktorova).
(LYMPHATICS—DISEASES)

KHARTONIK, A.A.

Agricultural accidents and their prevention in Slonim District.
Zdrav. Bel. 7 no. 4:29-30 Ap '61. (MIRA 14:4)

1. Iz khirurgicheskogo otdeleniya Slonimskoy rayonnoy bol'nitsy (glavnyy vrach O.P. Viktorova).
(SLONIM DISTRICT—AGRICULTURE—ACCIDENTS)

1. VINVERG, G. G. ; KHARTOVA, L. Ye.

2. USSR (600)

4. Carp

7. Intensity of metabolism in the fry of carp, G. G. Vinverg, L. Ye. Khartova, Dokl. AN SSSR 89 no 6 '53. , pp. 1119 - 1122.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

ISAKOV, V.A.; KADYRBAYEV, E.M.; MAL'CHENKO, Yu.I.; KHARTOVICH, Yu.I.

Ways of increasing the productivity of scraper ore handling in systems with mass caving. Trudy Inst.gor.dela AN Kazakh. SSR 9:28-35 '62. (MIRA 15:8)
(Leninogorsk region (East Kazakhstan Province)—Ore handling)

ISAKOV, V.A.; KHARTOVICH, Yu.I.

Using conveyors to transport hard ores in mass caving. Trudy Inst. gor. dela AN Kazakh. SSR 11:35-41 '63. (MIRA 16:8)

(Ore handling--Equipment and supplies)
(Conveying machinery)

ISAKOV, V.A.; KHARTOVICH, Yu.I.; TEN, N.A.

Improving techniques of mining the Sokol deposit.
Trudy Inst. gor. dela AN Kazakh. SSR 13:156-162 '64.
(MIRA 17:7)

AYTASHEV, G.A.; ISAKOV, V.A.; NOGAY, Yu.T.; KHARTOVICH, Yu.I.

Ways of improving the mining of valuable ore deposits with unstable enclosing rock. Trudy Inst.gor.dela AN Kazakh.SSR 14:18-27 '64. (MIRA 19:1)

IGNOV, V.I.; KHARTOVICH, Yu.I.; CHERNETSOV, G.Ye.

Ways of improving the drawing and the haulage of ores in the "Sokol'noye" deposit mines. Trudy Inst. gor. dela AN Kazakh. SSR 19:45-55 '65. (MIRA 18:12)

ISAKOV, V.A.; MAL'CHENKO, Yu.I.; TEN, N.A.; KHARTOVICH, Yu.I.

Advantage of mining low-grade ores in the "Sokol'noye" deposit mines. Trudy Inst. gor. dela AN Kazakh. SSR. 19:9-18 '65.
(MIRA 18:12)

KHARTSIYEV, N.; SOKOL'NIKOV, V.

Practice in the mechanization of motor vehicle washing. Avt. transp. 38 no. 5:52 My '60. (MIRA 14:2)
(Motor vehicles--Maintenance and repair)

KHARTSIYEV, N.A.

PHASE I BOOK EXPLOITATION 565

Belov, A.N., Shatov, S.G., Khartsiyev, N.A., Grab, I.I., and Cherchik, I.A.

Vosstanovleniye detaley mashin termitnoy naplavkoy; iz opyta avtoremontnogo zavoda (Rehabilitation of Machine Parts by Thermit Resurfacing; Practice of an Automobile Repair Plant) Leningrad, 1956. 15 p. (Series: Leningradskiy dom nauchno-tekhnicheskoy propagandy. Informatsionno-tekhnicheskiy listok, no. 15. Svarka i payka metallov) 6,000 copies printed.

Sponsoring Agencies: Leningradskiy dom nauchno-tekhnicheskoy propagandy, and Vsesoyuznoye obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy.

Ed.: Ryzhik, Z.M., Engineer; Tech. Ed.: Freger, D.P.

PURPOSE: This pamphlet is intended for welding personnel employing thermit processes.

Card 1/2

Rehabilitation of Machine Parts (Cont.) 565

COVERAGE: The pamphlet presents a brief description of the thermit process adapted to resurfacing of worn out machine parts. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

Card 2/2

JG/ad
9-10-58

AUTHOR Khartsiyev V.Ye., 57-8-11/36

TITLE On Simple Methods of Investigation of the Zone Structure of Some Semiconductor Compounds.
(O prostykh metodakh issledovaniya zonnoy struktury nekotorykh poluprovodnikovykh soyedineniy - Russian)

PERIODICAL Zhurnal Tekhn.Fiz.,1957,Vol 27,Nr 8,pp 1713-1722 (U.S.S.R.)

ABSTRACT Simple and at the same time general expressions(only for certain symmetry types of crystals as well as of the type of character of the chemical compound)are deduced which determine the zone structure in semiconductors.First a general investigation of a one-dimensional problem is carried out.By means of the matrix ratio obtained the three-dimensional lattice system for the compounds of groups III and V($A^{III}B^{V}$)of the periodic system,which have the structure of zinc blende,as well as that for semiconductors with the structure of the NaCl type,are investigated.The use of a lattice model for the investigation of the zone structure of the electron spectrum in semiconductor compounds makes it possible to combine the consideration of the character of crystal symmetry with the characteristics of chemical compounds.Because of the use of matrices the calculations become algo-rhytmically simple and clear. (2 illustrations and 8 Slavic references).

ASSOCIATION Leningrad Physical Technical Institute of the Academy of Sciences of the USSR. (Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.)

SUBMITTED January 18, 1957
AVAILABLE Library of Congress.
Card 1/1

AUTHOR: Khartsiyev, V. Ye. SOV/57-58-8-5/37

TITLE: Statistics of Impurity Centers With Several Levels in Semiconductors of Germanium Type (O statistike primesnykh tsentrov s neskol'kimi urovnyami v poluprovodnikakh tipa germaniya)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Nr 8, pp. 1651 - 1656 (USSR)

ABSTRACT: This is a discussion of the causes for the existence of a number of levels in donor-acceptor and in acceptor impurities of Au, Cu, Fe and of other complicated impurities in semiconductors of germanium type. Equation (1) for the chemical potential in cases of complicated impurities is deduced, proceeding from the neutrality of the semicondutor. The deduction is based upon the following assumptions: A precised Fermi-distribution, the conception of the tetrahedron structure of the valence electrons in the replaced impurity atom and subsequent filling of the energy levels by electrons: The following cases are considered: 1) A complicated donor-acceptor Au-impurity with 4 levels in the forbidden zone and a certain simple donor impurity with corresponding concentrations. 2)A

Card 1/2

15(0), 15(7)

AUTHOR: Kolomiyets, B. T., Doctor of Technical Sciences SOV/30-59-2-45/60

TITLE: The Investigation of Vitreous Semi-Conductors (Izucheniye stekloobraznykh poluprovodnikov)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 2, pp 103-104 (USSR)

ABSTRACT: From December 1 to 2, 1958 a conference took place on this problem at the Fiziko-tekhnicheskiy institut Akademii nauk SSSR (Physicotechnical Institute of the Academy of Sciences, USSR). It dealt with the discussion of the experiments carried out, mutual information on the course of experiments and their general coordination. Representatives from 11 scientific institutions attended the conference. The following lectures were heard: V. V. Tarasov, Moskovskiy khimiko-tekhnologicheskiy institut (Moscow Chemicotechnological Institute) spoke of experimental results connected with the investigation of heat capacity at low temperatures of As_2S_3 and As_2Se_3. His second report dealt with the polymeric concept of glass formation and semiconductors in general.

R. L. Myuller, Gosudarstvennyy opticheskiy institut (State Optical Institute) emphasized the decisive role played by the covalent bond in glass formation.

A. A. Vaypolin, Institut khimii silikatov Akademii nauk SSSR (Institute of Silicate Chemistry of the AS USSR) described the investigation of the structure of the system As_2Se_3-As_2Te_3 by X-ray methods.

L. I. Tatarinova, Institut kristallografii Akademii nauk SSSR (Crystallographical Institute of the AS USSR) reported on the structural investigation of some chalcogenides by electron-diffraction.

A. I. Gubanov and Y. Ye. Khartsiyev, Fiziko-tekhnicheskiy institut (Physicotechnical Institute) reported on theoretical problems of the semiconductor properties of glass types.

V. P. Shilo discussed working results in the determination of boundaries in glass formation in the As_2S_3 and As_2Se_3 systems.

N. A. Goryunova compared the boundaries of vitreous state in these systems with the criteria of glass formation obtained by Zakhariasen and Vinter-Kleyn and found that there exists no correlation between them.

T. F. Nazarova investigated the electric properties of semiconductor glass types in the TlSe - As_2Se_3 system.

B. T. Kolomiyets spoke of research work in the field of inner photoelectric effect done by T. F. Nazarova.

B. V. Pavlov discussed experimental results of the position of the absorption boundary as dependent on the change of composition of glass types.

V. P. Pozdnev reported on material he obtained in the investigation of the viscosity of glass types in the As_2Se_3 - As_2Te_3 system.

B. T. Kolomiyets summarized the working results obtained by the Physicotechnical Institute and found that in the materials investigated the short-range order is not changed in the transition from the vitreous into the crystalline state.

O. V. Mazurin, Leningradskiy khimiko-tekhnologicheskiy institut (Leningrad Chemicotechnical Institute) described the investigation of the semiconductor properties of silicate and borosilicate glass types with the addition of iron-cobalt and titanium oxides.

N. V. Petrovykh, Moskovskiy institut elektrotekhnicheskogo stekla (Moscow Institute of Electrotechnical Glass) outlined the investigation results of the boundaries of glass formation and the electric properties of contiguous semiconductor glass types of the composition V_2O_5 - P_2O_5 - R_xO_y (R- elements of the I, II, III, IV and V groups of the periodic system).

The next conference on semi-conductor glass types will probably be held in 1959.

Card 1/4

KHAR-TS 14/3 U, U. Ye.

(11

KHARTSIYEV, V. Ye., and DANILKIN, V. I.,

"Heat and Mass Transfer Under Non-isothermic Conditions."

Report submitted for the conference on Heat and Mass Transfer, Minsk, BSSR, June 1961.

S/181/61/003/005/017/042
B136/B201

9,4300 (1143, 1150, 1151)

AUTHORS: Gashimzade, F. M. and Khartsiyev, V. E.

TITLE: Energetic structure of complex semiconductors. Calculation of the band structure of Si, Ge, and GaAs by the simplified OPW method

PERIODICAL: Fizika tverdogo tela, v. 3, no. 5, 1961, 1453 -1457

TEXT: Besides the Hall method of equivalent orbits, the method of orthogonalized plane waves (OPW) is a procedure of setting up semiquantitative patterns of the energy band structure of complex semiconductor compounds. Although the good results achieved therewith for semiconductors of the A^{IV} type allowed one to expect this method to be also applicable to A^{III} B^{V} semiconductors, difficulties arise in this case, one of which has been overcome by Antonchik (Ref. 1: E. Antonchik, J. Phys. chem. Sol., 10, 314, 1959), who has replaced the orthogonalization conditions for plane waves with respect to the ion core by the effective repulsion potential (Ref. 9: P. Gombash, Handb.d. Phys., 36, no. 2, 1956). The second difficulty, i.e.

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Energetic structure of ...

the solution of the Hartree-Fok equation for the wave functions of the lattice atoms, can be overcome by way of approximations only. If the repulsion potentials are used, it is no more necessary accurately to determine energy states of the atoms, and one may therefore use less precise wave functions. Slater functions (Ref. 2: P. Gombash, Problema mnogikh chastits, M., 198, 1953) have been used as approximations in the present investigation. As the calculation remains otherwise the same, only the calculation of the potentials is dealt with. The total potential consists of the Coulomb potential, the exchange and repulsion potentials. In this connection, the values of covalent radii by Pauling (Ref. 13: Pauling. Priroda khimich. svyazi, str. 71, 1947) have been adopted. For checking the approximation and for choosing the Slater functions, also the energy band of Si and Ge was dealt with besides GaAs. Methods and results by Antonchik are discussed for comparison (Ref. 10: E. Antonchik. Chechosl. Fiz. Zhurn., 9, 291, 1959). As opposed to the OPW method, the Hall interpolation method requires considerably larger distances between the energy levels and, therefore, gives inacurate values for some constants, as, e.g., the cyclotron constant. A. I. Gubanov is thanked for his interest in the work, as well as E. Antonchik and F. Herman for having sent preprints. There

Energetic structure of ...

are 1 figure, 4 tables, and 20 references: 5 Soviet-bloc and 15 non-Soviet-bloc. The three most recent references to English-language publications read as follows: L. Kleinman, J. Phillips Rev. lett., no. 1, 41, 1960; F. Bassani, J. Phys. Chem. Sol., 8, 375, 1959; H. Hagstrum, J. Phys. Chem. Sol., 8, 211, 1959.

ASSOCIATION: Fiziko-tekhnicheskiy institut imeni A. F. Ioffe AN SSSR Leningrad. (Institute of Physics and Technology imeni A. F. Ioffe, AS USSR, Leningrad). Institut fiziki AN Az. SSR Baku. (Institute of Physics AS Azerbaydzhanskaya SSR, Baku)

SUBMITTED: August 25, 1960

Card 3/4

22162

S/048/61/025/004/011/048
B104/B201

24,3500

AUTHOR: Khartsiyev, V. Ye.

TITLE: Parameters of adhesion centers determining the kinetics of photo-thermostimulated effects

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 4, 1961, 469-471

TEXT: The present paper has been read at the 9th Conference on Luminescence (Crystal Phosphors), Kiyev, June 20-25, 1960. Photo-thermostimulated effects are known to consist in a change of the conductivity of a crystal phosphor under various non-isothermal conditions at different excitations and exposures. In the present theoretical investigation, the author restricted himself to unipolar conductivity and one type of adhesion centers with concentrations M. Moreover, two kinds of exposure were considered: one caused impurity-photoconduction, while the other produced band-to-band transitions. The balance of transitions in the unit time, as shown in Fig. 1, leads to system of Eqs. (1)-(2) for the electron concentration n(t) in the conduction band and the electron concentration m(t) at

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the adhesion centers:

$$n'(t) + m'(t) = -[\tau^{-1} + \lambda m(t)]\, n(t) + aI(t); \quad (1)$$

$$m'(t) = -\overline{\alpha} m(t) + \gamma [NI - m(t)]\, n(t);$$

$$\int_{t_0}^{t} \overline{\alpha}[T(t)]\, dt = \int_{t_0}^{t} [\alpha + a_i i + a_I I]\, dt = a(t); \quad (2)$$

In the neighborhood of the maximum of the photo-thermostimulated current, the system has the solution

$$n(t) = aI(t)\tau(1 + \delta_i) + \varphi(t)\tau\left[m_0 + \int_{t_0}^{t} a\delta_i I \exp\left(\int_{t_0}^{t} \varphi(t)\, dt\right) dt\right] \times$$

$$\times \exp\left(-\int_{t_0}^{t} \varphi(t)\, dt\right). \quad (3)$$

For I = 0, when neglecting the weak temperature dependence of τ, γ and λ are exact solutions of (1) and (2) in the implicit form (4), which, for $p > q$, may be represented by approximation in the form (5):

$$p = \gamma N \tau; \; q = \gamma / \lambda; \quad (4)$$

Parameters of adhesion...

$$r_0 = \frac{\lambda m_0}{\tau^{-1} + \lambda m_0} < 1; \quad \frac{m}{m_0} = \exp\left(-\left\{\frac{a(t)}{1+p} + \left(1 - \frac{1+q}{1+p}\right) \times \right.\right.$$
$$\left.\left. \times \left[1 - (1-r_0)^{-1}\left(1 - e^{-\frac{a(t)}{1+p}}\right)\right]\right\}\right). \qquad (5)$$

The solution given here, which takes into account a considerable filling of adhesion levels, the existence of an exposure, the time dependence of lifetime on the carrier concentration in the adhesion levels, and the unbalance between adhesion levels and the conduction band, generalizes the results of the theory of the thermostimulated current, and in addition offers the possibility of studying parameters E, M, a_j, and m_{max}, especially for $\tau^{-1} \gg \lambda m$. If there are several types of adhesion levels and sufficiently large energy differences between those types, the photo-thermostimulated effects can be examined in some approximation independently for each single type. There are 1 figure and 8 references: 6 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: Haering R., Adams E., Phys. Rev., 117, 451 (1960).

Card 3/4

Parameters of adhesion...

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk SSSR (Institute of Physics and Technology, Academy of Sciences USSR)

Legend to Fig. 1: Balance of the transitions determining the kinetics of photo-thermostimulated effects in case of one type of adhesion centers. Dotted transitions are optical ones.

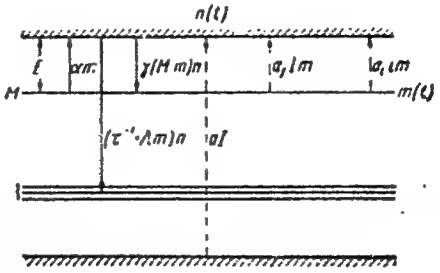
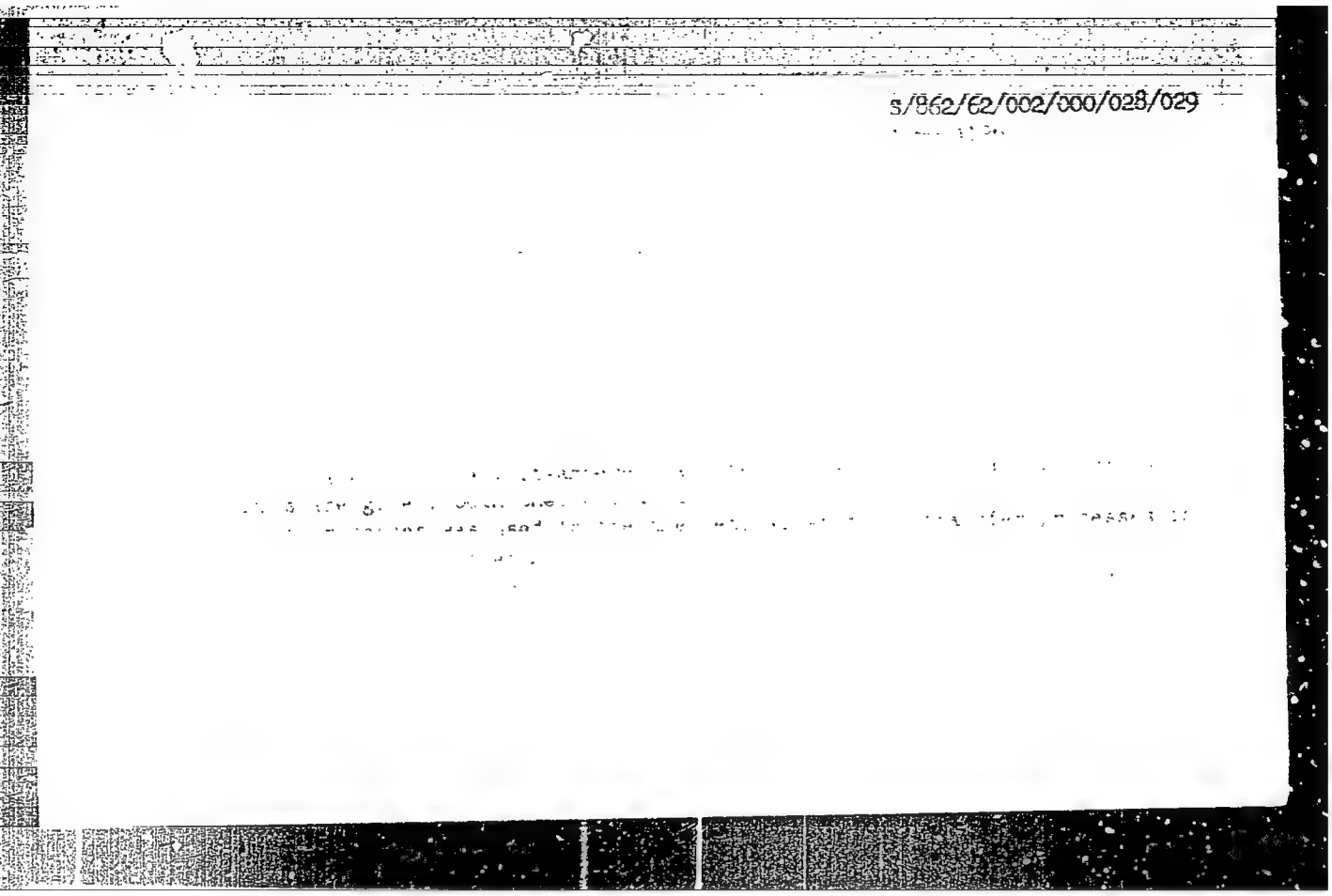


Fig. 1

Card 4/4



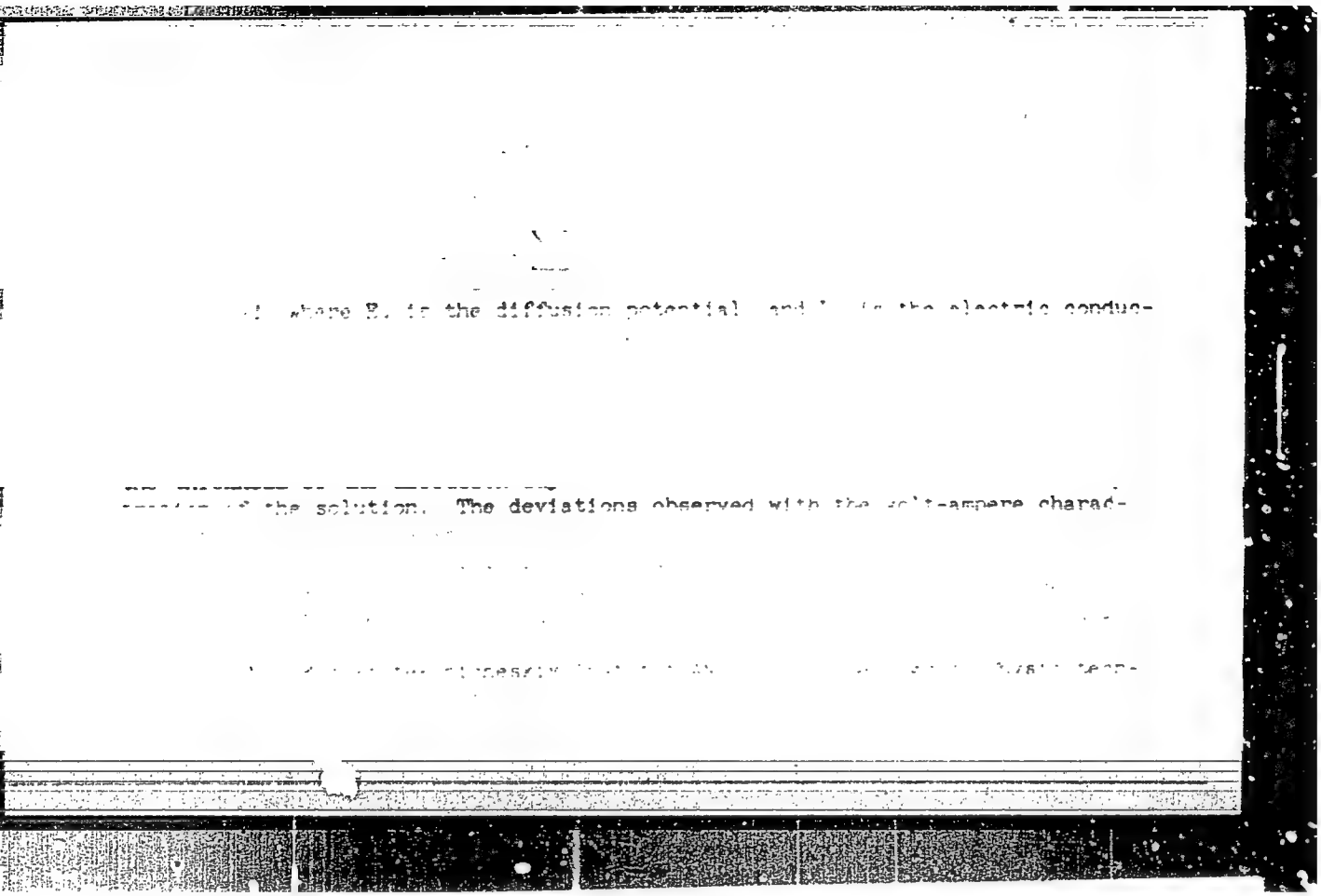
being the number of reduced electric transfer, T absolute temperature, p pressure, and μ the chemical potential). The temperature gradients of the porous membranes were measured with the setup shown in Figure 2, and the volt-am- characteristics of flat cation-exchange membranes

erial membranes with a permanent

dependence of the

$$\frac{\Delta}{\Delta T} = - \frac{1}{\pi T} \left(\frac{\Delta \pi}{\Delta c} \right)$$

was found to hold, where $\frac{\Delta E}{\Delta T} \simeq 0.60$ mv, which is in agreement with the estimated value of 0.3 mv/degree when t_+ is taken to be



S/181/62/004/002/021/051
B101/B102

AUTHORS: Gashimzade, F. M., and Khartsiyev, V. Ye.

TITLE: Energy structure of composite semiconductors. Valence band spectra of anisotropic SnS-type compounds

PERIODICAL: Fizika tverdogo tela, v. 4, no. 2, 1962, 434 - 442

TEXT: On the basis of the unit cell of SnS, a general calculation of the valence band for SnS-type compounds (SnS, SnSe, GeS, GeSe, $PbSnS_2$, and $A^{III}B^{V}$ semiconductors) is performed by the method of localized orbits. As the secular determinant (12th order) obtained for the energy cannot be solved, a solution is sought in the symmetric points of the Brillouin zone. Using results of a previous group-theoretical analysis (FTT, 2, 2070, 1960), eight symmetric combinations of localized orbits at $\vec{k} = 0$ are written down. An estimate of the relative magnitude of the interaction integrals furnishes the levels Γ_2 and Γ_7 as the uppermost valence-band levels in $\vec{k} = 0$. A local maximum of $E(\vec{k})$ is found in $\vec{k} = 0$. The effective mass ratios of holes are: $m_y^* : m_x^* : m_z^* \simeq 4 : 1 : 1$, or

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$m^*_\perp : m^*_\parallel \simeq 4 : 1$. From experimental data on the anisotropy in the conductivity of SnS single crystals it follows that $m^*_\parallel = 0.5m_0$, and for polycrystalline specimens one obtains $m^*_{mean} = 1.4m_0$. Assuming $m^*_{mean} = \sqrt{m^*_\perp m^*_\parallel}$ ono finds $m^*_\perp \simeq 3.9m_0$ and $m^*_\perp : m^*_\parallel = 8 : 1$. In addition, $E^{\Gamma_2} - E^{\Gamma_7}$ was calculated to be 0.1 ev. The Γ_7 band probably manifests itself in optical effects, e.g., in the spectral distribution of photoconductivity and perhaps also in galvanomagnetic effects in the relevant temperature ranges. The spectrum remains qualitatively unchanged by allowing for spin-orbital interaction. A paper of A. A. Nran'yan (FTT, 2, 474, 1960) is referred to. A. I. Gubanov is thanked for a discussion. There are 2 figures and 15 references: 5 Soviet and 10 non-Soviet. The four most recent references to English-language publications read as follows: W. Albers, C. Haas, F. Maesen, J. Phys. Chem. Soc., 15, 306, 1960; S. Asanabe, A. Okazaki, J. Phys. Soc. Jap., 15, 989, 1960; B. Umeda, J. Phys. Soc. Jap , 16, 124, 1961; C Haas, Corbie, J. Phys. Chem. Sol., 20, 197, 1961.

Card 2/3

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad (Physicotechnical Institute imeni A. F. Ioffe, AS USSR, Leningrad); Institut fiziki AN AzSSR, Baku (Physics Institute, AS Azerbaydzhanskaya SSR, Baku)

SUBMITTED: September 6, 1961

Card 3/3

36673
S/181/62/004/004/022/042
B102/B104

24.7100

AUTHOR: Khartsiyev, V. Ye.

TITLE: Study of the energy band symmetry in CdSb and ZnSb

PERIODICAL: Fizika tverdogo tela, v. 4, no. 4, 1962, 983-991

TEXT: The symmetry properties of the band structure of CdSb and ZnSb semiconductors is studied and the position of the energy bands is considered from the viewpoint of the general features of the chemical bonds with Ge-type semiconductors. These compounds belong to the space group D_{2h}^{15} (orthorhombic system) and have 16 atoms per unit cell. Their forbidden-band width is ~0.5 ev. The D_{2h}^{15} group is first characterized, its elements are given, and a representation is discussed. The subgroup element representations given in tables are used to study the particularities of the energy spectrum, such as the spin effect and the band position. A. I. Gubanov and F. M. Gashimzade are thanked for interest and discussions. The present paper was read at the 2-ye Vsesoyuznoye soveshchaniye po fotoelektricheskim i opticheskim yavleniyam v poluprovodnikov (Second

Card 1/2

Study of the energy band...

All-Union Conference on Photoelectrical and Optical Effects in Semiconductors) (L'vov, October 1961).

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad)

SUBMITTED: December 6, 1961

Card 2/2

NASLEDOV, D.N.; ROGACHEV, A.A.; RYVKIN, S.M.; KHARTSIYEV, V.Ye.; TSARENKOV, B.V.

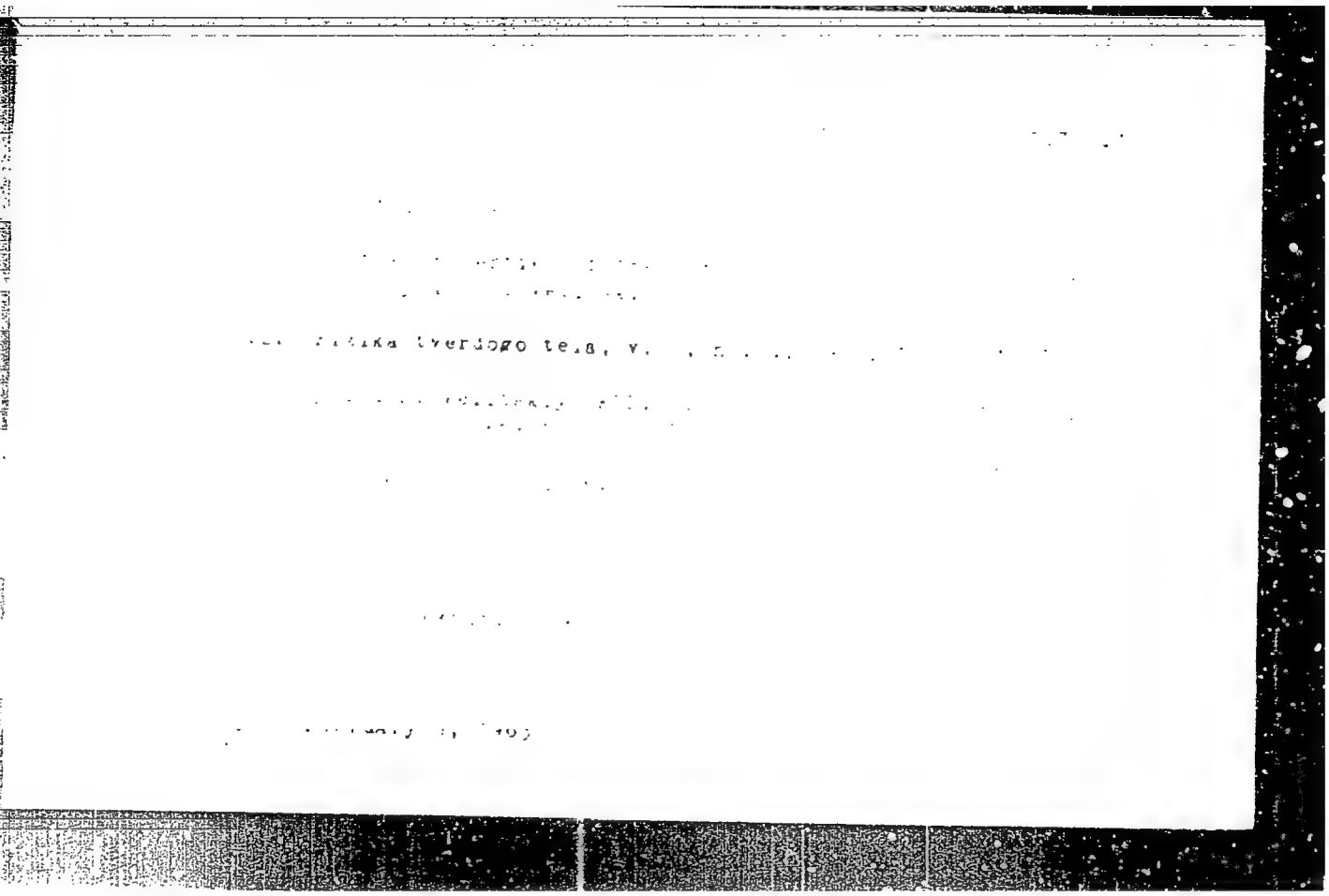
Structure of direct recombination spectra of gallium arsenide. Fiz. tver. tela 4 no.11:3346-3348 N '62. (MIRA 15:12)

1. Fiziko-tekhnicheskiy institut imeni A.F. Ioffe AN SSSR, Leningrad.

(Gallium arsenide—Spectra)

The chemical bond and energetic structure of certain types of semiconducting compounds. V. E. Khartsiyev (25 minutes).

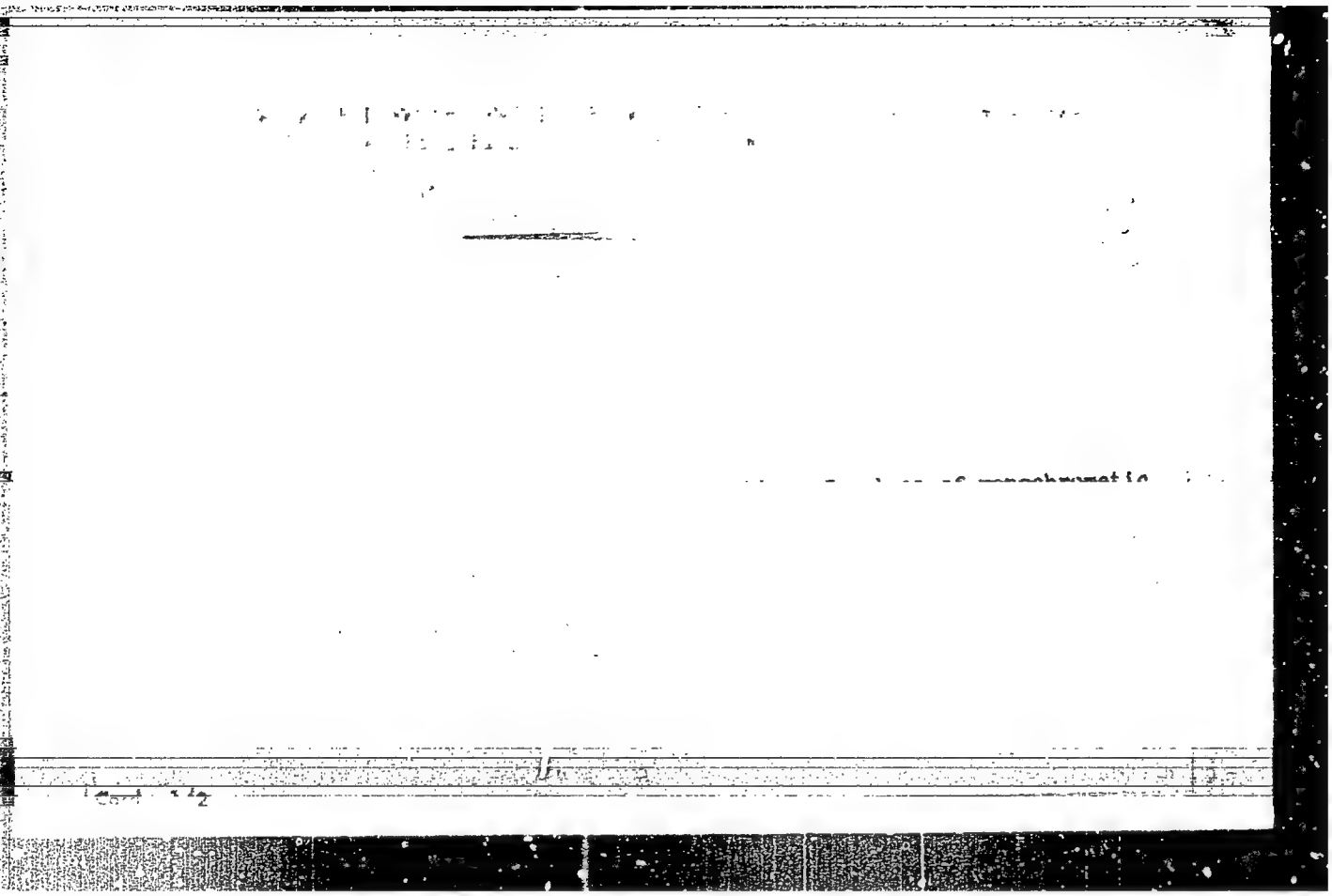
Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

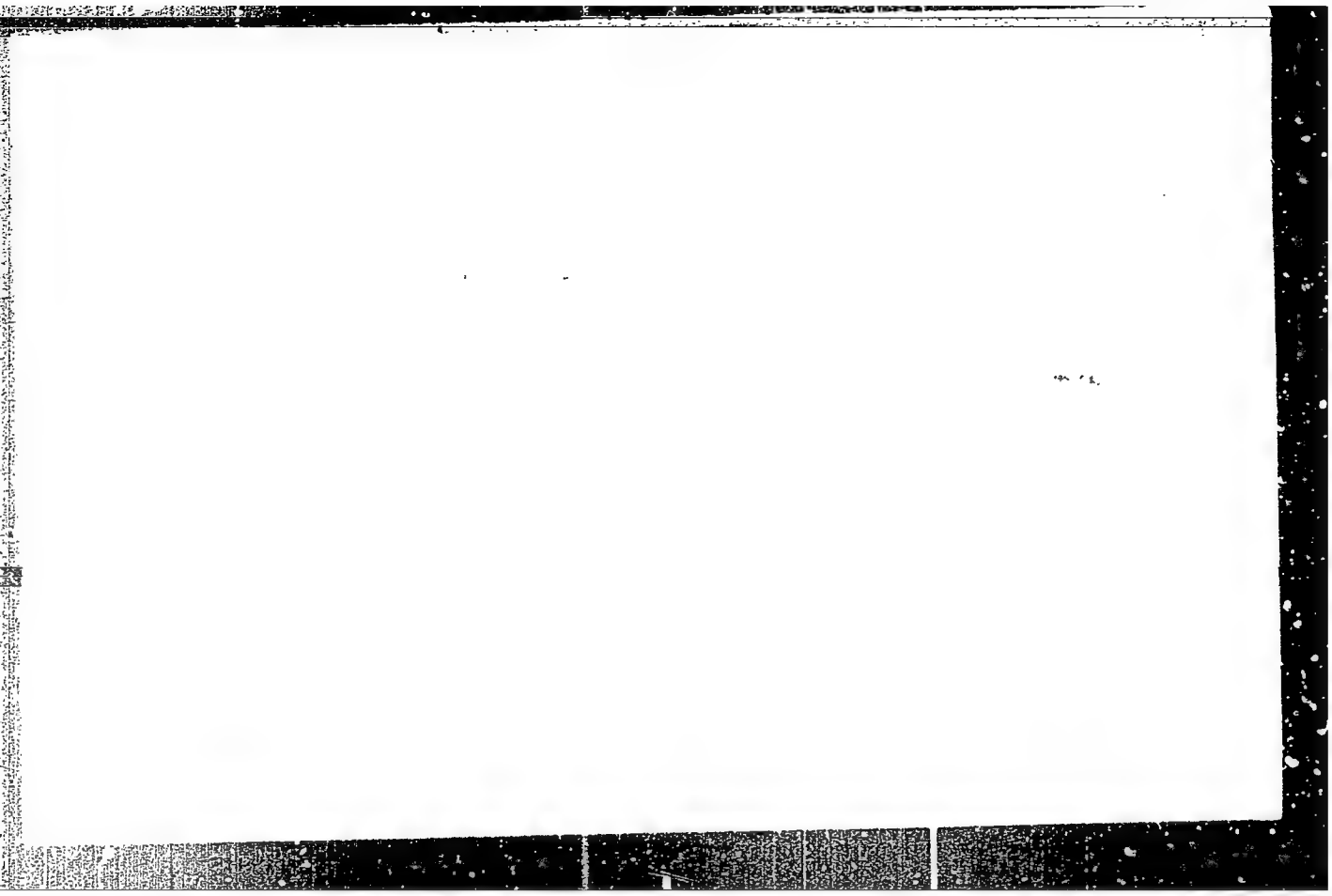


KHARTSIYEV, V.Ye.

Energy structure of semiconducting compounds. Izv. AN SSSR Ser. fiz. 28 no.8:1266-1275 Ag '64 (MIRA 17:8)

1. Fiziko-tekhnicheskiy institut im. A.F. Ioffe AN SSSR.





EWT(l)/EEC(k)-2/T/EWP(k)/EWA h

ACC NR: AP6011575 SOURCE CODE: UR/0051/66/020/003/0514/0515 42

AUTHOR: Khartsiyev, V. Ye. 40 B

ORG: none

TITLE: Resonant absorption of monochromatic radiation in a system with intermediate energy level

SOURCE: Optika i spektroskopiya, v. 20, no. 3, 1966, 514-515

TOPIC TAGS: ruby laser, laser r and d, giant pulse laser, solid state laser, liquid state laser, laser amplifier, bleaching wave

ABSTRACT: This is a continuation of earlier work (ZhETF v. 49, 315, 1965) where successive bleaching of a two-level system by resonant radiation (bleaching wave) was considered. The present paper deals with the physical picture corresponding to one of the mechanisms of single-photon absorption in an optically dense medium, namely bleaching by a powerful pulse of resonant monochromatic radiation in the case when the lifetime of the excited state of the absorbing centers of the medium is small and the excited state acts like an intermediate region. An analysis of the kinetics of the propagation of the pulse of monochromatic radiation in such a medium shows that as the absorbing centers go over from the exciting state into those corresponding to the intermediate level, the medium becomes transparent layer by layer for the monochromatic radiation, so that a bleaching-wave effect is produced. In the case of solu-

Card 1/2 UDC: 621.375.9: 535.001.1

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ACC NR: AP6011575

2

tions of organic molecules which resonantly absorb radiation from lasers, the required energy from a ruby laser is lower than 0.5×10^6 w/cm^2. It is concluded that the wavelike mechanism of absorption of powerful pulses of monochromatic radiation is probably one of the main mechanisms of single-photon absorption in solutions of many organic molecules whose absorption bands coincide with the laser generation lines. In semiconductors this mechanism can occur upon excitation of the electrons of impurity centers in band states, when the quantum energy is smaller than the width of the forbidden band. If the intermediate level is metastable, this mechanism can be used to produce an active medium for solid-state and liquid-state lasers and amplifiers. The authors thank Ye. F. Gross for discussion. Orig. art. has: 1 figure and 3 formulas.

[02]

SUB CODE: 20/ SUBM DATE: 11Aug65/ ORIG REF: 004/ OTH REF: 001/ ATD PRESS: 4257

Card 2/2 FW

L 41021-66 EWT(1)/FCC GW

ACC NR: AP6019650 SOURCE CODE: UR/0368/66/004/006/0509/0515

AUTHOR: Khartsiyev, V. Ye.; Ovchinnikov, V. M.

ORG: none

TITLE: Transmission of monochromatic radiation through a resonance absorbing medium

SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 6, 1966, 509-515

TOPIC TAGS: monochromatic radiation, electromagnetic radiation, electromagnetic wave absorption, resonance absorption, stellar radiation

ABSTRACT: The general case of a model problem of the transmission of monochromatic radiation pulses through a unidimensional medium containing irregularly distributed absorption centers of several types with two coinciding energy levels is examined, and the physical picture corresponding to the photobleaching effect arising in an optically dense absorption medium is analyzed. General expressions are derived for values of the photon flux density and absorption coefficient in a resonance absorption medium. The relationships investigated are a generalization of the Bouguer law for the case of powerful fluxes of monochromatic radiation with consideration of absorption saturation. The examined mechanism of nonstationary bleaching of absorption media is common for various spectral ranges of electromagnetic

Card 1/2 UDC: 535.34:535.89

L 41021-66

ACC NR: AP6019650

radiation: microwave, IR, UV, and the visible regions. The mechanism can also occur in astrophysical phenomena. One of the possible effects is bleaching (clarification) of the interstellar medium subjected to radiation fluxes of variable intensity arising during explosions of the shells of stars or other nonstationary phenomena. It is emphasized that in this case excitation is accomplished by a continuous spectrum with an almost constant intensity along the line contour. Therefore, as a consequence of the different probability of the absorption of photons in the center and periphery of the line contour, bleaching of the medium will occur at a dissimilar rate for different frequencies within the contour of the line. Orig. art. has: 1 figure and 19 formulas.

SUB CODE: 20/ SUBM DATE: 13Dec65/ ORIG REF: 006/ OTH REF: 005
03/

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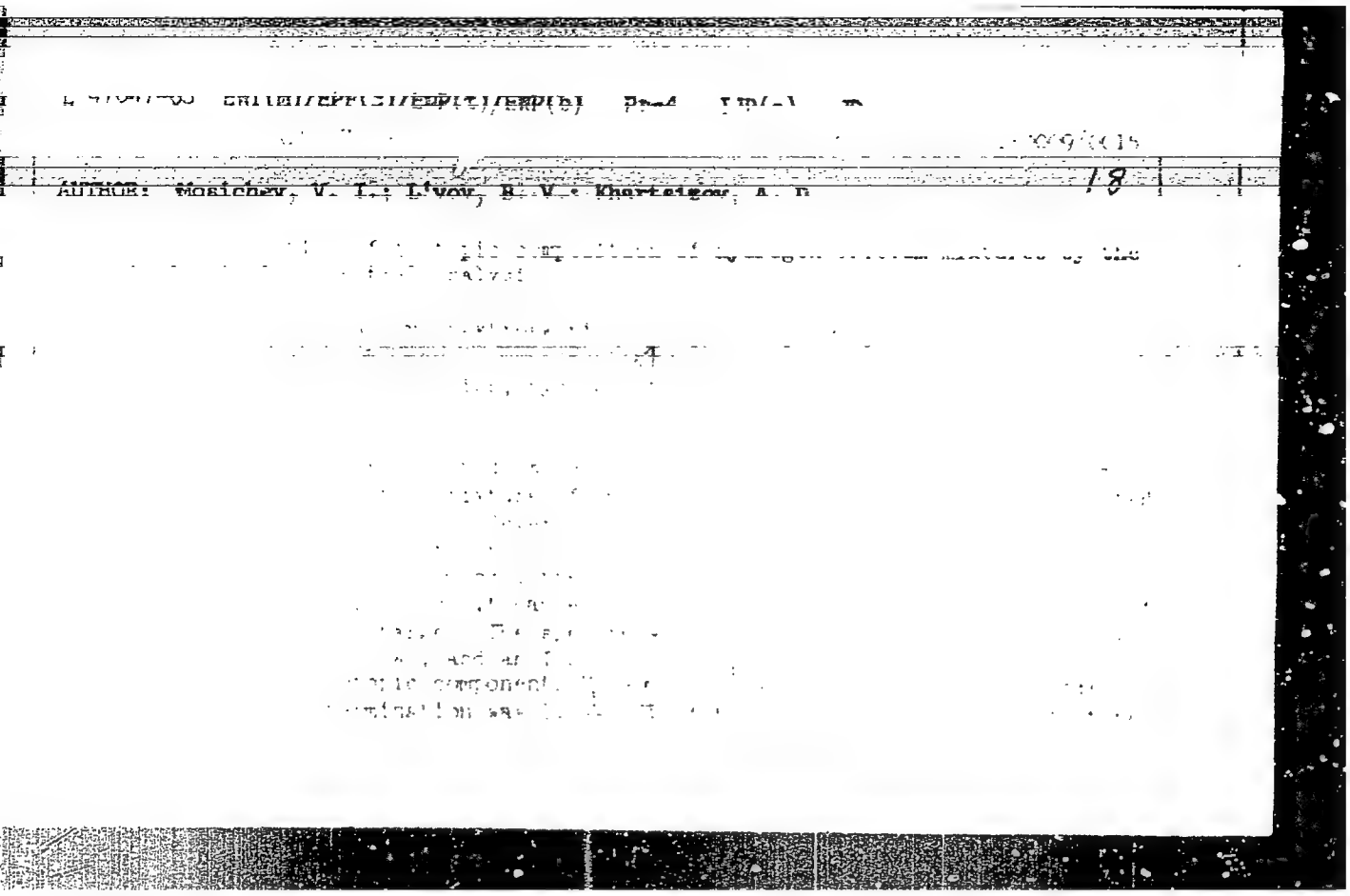
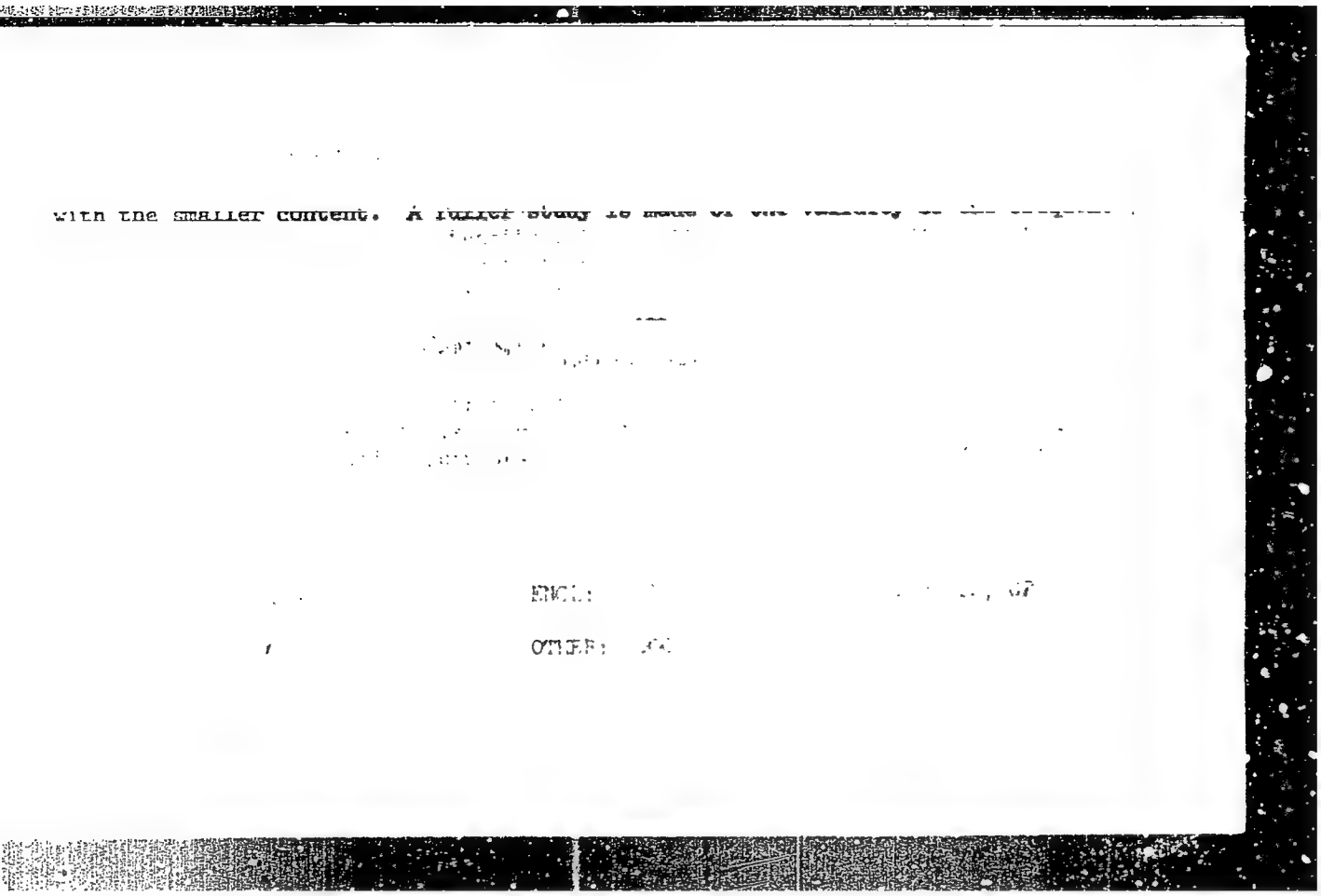


AUTHOR: Moiseev, V. I.; L'vov, B. V.; Khartsiyev, A. D.



with the smaller content. A fuller study is made of the validity of the

ENCL:

OTHER:

KATRUKHA, G.S.; SILAYEV, A.B.; KHARTSKHAYEVA, S.V.

Potassium 4-chloro-3,5-dinitrobenzenesulfonate, a new reagent for the quantitative determination of amino groups in antibiotics by the partial substitution method. Biokhimiia 27 no.3:549-556 My-Je '62. (MIRA 15:8)

1. Laboratory of Chemistry of Protein and Antibiotics, State University, Moscow.
(AMINO GROUP) (ANTIBIOTICS) (CHEMICAL TESTS AND REAGENTS)

LUK'YANOVA, O.I.; KHARTSKHAYEVA, S.V.

Calorimetric study of the hydration of sodium metasilicate. Dokl. AN SSSR 163 no.3:677-680 Jl '65. (MIRA 18:7)

1. Submitted January 15, 1965.

KHARTULARI, Yu. M.

"Bactericlogical and chemical studies of a number of Lakes in the Moscow Region in connection with the decomposition of Sediment and the formation of gases," Tr. Limn. stantsii v Kosine, No 22, p 115, 1939.

KHARTULARI, Ye. M. and KUZNETSON, S. I.

"Microbiological characterization of the processes of anaerobic decomposition of organic matter of the silt of Bilcye Lake at Kosina," Mikrobiologiya, 10, p 834, 1941.

KHAYTOVSKIY, V. V. --

"The Problem of the Relationship Between Allergy and Immunity." Cand Med Sci, Kiev Medical Inst, Kiev, 1953. (RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions(10)

SO: Sum. No. 481, 5 May 55

L 26378-66 EWT(1)/T IJP(c) GW
ACC NR: AP6007686 (A) SOURCE CODE: UR/0413/66/000/003/0067/0067

AUTHORS: Sheler, Khorst; Vaybrekht, Otto; Kheyrot, Aleksander; Khartvig, Khorst 44 43 B

ORG: none

TITLE: Device for differential transformation of aerial photographs. 20 Class 42, No. 178506

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 67

TOPIC TAGS: aerial photography, optics, aerial photograph, photographic device

ABSTRACT: This Author Certificate presents a device for differential transforming of aerial photographs. The device is used in conjunction with a photogrammetic device for processing aerial photographs. It contains an inversor which acts on the basic law of optics, and a photograph support and screen which may be positioned relative to one another in three mutually perpendicular planes. Accuracy in scaling is facilitated by the inversor which features a reduction device for control of the coefficient of aerophoto transformation with allowance made for focal distance. This distance corresponds to the transform coordinates of the current point of aerophoto slojie on the horizontal aerial photograph. The inversor 2

Card 1/2 UDC: 528.722.31

L 26378-66
ACC NR: AP6007686

is made in the form of directional-controlled rods and connecting links attached to each rod, thus allowing rotation about the X-X axis and intersection of the directional at a point on the X-X axis. Electrical control of the coefficient of transformation is maintained by an electromoter circuit controlling the variation of distance from the objective to the photo and from the objective to the screen. This is an electrical bridge circuit for processing data coming from the photogrammetric device.

SUB CODE: 14/ SUBM DATE: 21Nov65

OPARIN, A.I., akademik; KHART'YAN, Ye.F.; GEL'MAN, N.S.

Localization of hydrogenases and their relation to oxygen in cells of Lactobacterium pentoacericum. Dokl. AN SSSR 157 no.1: 211-214 Jl '64 (MIRA 17:8)

1. Institut biokhimii im. A.N. Bakha AN SSSR.

BAZHENOV, V.A.; KHARUK, Ye.V.

Testing the permeability of pine wood to nitrogen and antiseptic solutions. Trudy Inst. lesa i drev. 65:20-47 '63. (MIRA 16:10)

KILARUS, G. I.

PHASE I BOOK EXPLOITATION SOV/4959

Ural'skoye soveshchaniye po spektroc?

Materialy 2 Ural'skogo soveshchaniya po spektroskopii, Sverdlovsk, 1958 g. (Materials of the Second Urals Conference on Spectroscopy, Held in Sverdlovsk, 1958) Sverdlovsk, Metallurgizdat, 1959. 206 p. Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: Ural'skiy filial Akademii nauk SSSR. Komissiya po spektroskopii and Ural'skiy dom tekhniki VSNTO.

Eds.: Izak Borisovich Shayevich and Gennadiy Pavlovich Skornyakov; Tech. Ed.: N. M. Kalyuzh.

PURPOSE: This collection of articles is intended for spectral analysis laboratory workers at ferrous and nonferrous metallurgical plants, and for laboratory personnel of the metal-working industry, geological and prospecting organizations, and similar scientific research laboratories.

COVERAGE: The collection contains papers read at the Second Urals Conference on the spectral analysis of ferrous and nonferrous metals and alloys, slags, ores, agglomerates, refractories and other materials used in industry. The material of the conference includes articles on the analysis of steels (including the determination of gases), ferroalloys, nonferrous and light metals and alloys, pure noble metals, etc. The present volume is intended to disseminate the latest experience in working with spectral laboratories, and to report on the results of scientific research. The author thanks N. I. Ostkina and Yu. M. Buravlev. Almost all of the articles are accompanied by references.

87895

S/126/60/010/003/002/009/XX
E201/E391

9.4300

AUTHORS: Kharus, G.I. and Tsidil'kovskiy, I.M.

TITLE: Anisotropy of the Photomagnetic Effect in Cubic Crystals

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol. 10, No. 3, pp. 341 - 345

TEXT: If light falls normally (along the z-axis) on a semiconductor plate in a magnetic field, which is applied in the plane xz and makes an angle Θ with the x-axis, then an electric field E_1 appears in the x-direction (transverse photomagnetic effect) and a field E_2 appears in the y-direction (normal photomagnetic effect). Anisotropy of the transverse photomagnetic effect appears as a characteristic dependence of E_1 on the angle of rotation of the semiconductor plate about the z-axis. Such anisotropy was observed by Kikoin and Bykovskiy (Refs. 1, 2) in germanium. The present paper gives a theoretical explanation of this anisotropy.

Card 1/3

87896
S/126/60/010/003/002/009/XX
E201/E391

Anisotropy of the Photomagnetic Effect in Cubic Crystals

The authors discussed both photomagnetic effects in crystals of cubic symmetry subjected to weak magnetic fields. Calculations were based on the following two assumptions: 1) a sample possessed impurity conduction in darkness (n-type semiconductor was assumed), i.e. $n_o \gg p_o$, where n_o and p_o are equilibrium densities of electrons and holes, respectively; 2) the photocarrier densities (Δn, Δp) were considerably smaller than the majority equilibrium carrier density (n_o), i.e. $\Delta n = \Delta p \ll n_o$. The second assumption represented conditions of a weak illumination. Calculations for n-type germanium (spherical energy surfaces were assumed) showed that the angular dependence of the photomagnetic effects for any magnetic fields was correctly predicted by the phenomenological theory developed by the authors for cubic

Card 2/3

N NR: AP5003412 /0046/0053

Domanskaya, L. I. Khat... ...skiy, I. M.

The Nernst-Ettingshausen ... silicon

Fizika tverdogo tela ...

TAGS: silicon, Nernst Ettingshausen effect, doping, temperature dependence, concentration dependence ...

The Nernst-Ettingshausen (NE) ... was measured in ... crystal silicon doped with ... temperature in... 100--400K. The measurements ... magnetic fields up ... directed in all cases along ... The temperature gradients in the samples were in the range ... deg/cm. The ... concentrations were determined by the Hall effect, and ...ed to 10^{16}--10^{20} cm^{-3} arsenic atoms. The values obtained for NE coefficient and its temperature dependence are illustrated

1/4

ESSION NR: AP5003412

... of the enclosure. An analysis ... conditions for the ...ability of the Born approximation ... screened Coulomb ...al has shown that the Brooks Herring formula for the proba... ...f scattering by impurity atoms ... conditions ... experiments. A reversal of the sign of the NE effect at ...arsenic contents was observed, but ... explained on the ...f this formula. A coefficient ... the scattering ...ism and independent of the mobility ... is used as a con... ...characteristic of the NE effect. The experimental and the...al values of this coefficient are compared and the discrepan...etween them are explained by taking into account the role ... "ion core" in scattering in the case of a large degree of ...d. Orig. art. has: 16 formulas, 5 figures, and 1 table.

...ATION: Institut fiziki metallov AN SSSR, Sverdlovsk (Insti... ...f Metal Physics AN SSSR)

2/4

FOMENKO, V.M., inzh.; KHARUZIN, M.Ye., inzh.

Operation and repair of regenerative air preheaters. Elek. sta. 34 no.11: 85-87 N '63. (MIRA 17:2)

KHARUZIN, M.Ye., inzh.

Experience in using acid in cleaning TGM-151 boilers. Elek. sta. 35 no.11:64-65 N '64. (MIRA 18:1)

3K

ACCESSION NR: AP4003198 S/0241/63/008/012/0047/0050

AUTHOR: Kharvat, Z.; Shmagel', Yu.

TITLE: Investigation of vessel regeneration in skin wounds as an objective method for determining changes in the healing process following x-irradiation

SOURCE: Meditsinskaya radiologiya, v. 8, no. 12, 1963, 47-50 (including insert facing p. 49)

TOPIC TAGS: skin wound, vessel regeneration, wound healing, postirradiation healing, skin wound healing, blood vessel regeneration

ABSTRACT: An earlier study has established that vessel regeneration in skin wounds of nonirradiated rats passes through a series of three qualitatively different stages. The authors recommend that these stages be used as an objective criterion in evaluating skin wound regenerative processes in irradiated animals. To determine the regenerative stage of vessels in a wound, rats are first anesthesized and the thoracic cavity is opened. Then the left ventricle of the heart is punctured to introduce a heated (50°C) mixture (30-50 ml) of gelatin, ink, and a few other substances through a fixed syringe

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ACCESSION NR: AP4003198

in the ascending artery. The animal is placed in cold water to cool the mixture in the vessels. Then a square skin flap is cut with the wound in the center. The skin is separated from the base of the wound and both are fixated in Carnoy solution and then placed in glycerine. With a stereoscopic microscope the vessel regeneration stage is determined in the skin preparations. Orig. art. has: 5 figures.

ASSOCIATION: Kafedra gistologii i embriologii meditsinskogo fakul'teta Karlova universiteta v gradtse Kralove (Histology and Embryology Department of the Medical Division of Charles University)

SUBMITTED: 04Jul63 DATE ACQ: 09Jan64 ENCL: 00

SUB CODE: AM NO REF SOV: 000 OTHER: 001

Card 2/2

S/137/62/000/003/150/191
A052/A101

AUTHOR: Kharvud, Yu. V.

TITLE: The phenomenon and mechanism of stress-corrosion cracking

PERIODICAL: Referativnyy zhurnal; Metallurgiya, no. 3, 1962, 84, abstract 3I538 (V sb. "Korrozion. rastreskivaniye i khrupkost'". Moscow, Mashgiz, 1961,7-25)

TEXT: The paper discusses the factors affecting the stress-corrosion cracking, the mechanism of stress-corrosion cracking, the systems of alloys liable to the intercrystalline cracking and the systems of alloys liable to the intracrystalline cracking, the development of cracks. There are 36 references.

N. Yudina

[Abstracter's note: Complete translation]

Card 1/1

KHANYAKIN, YU, V.

Illustrators

More about Agin and Fedotov. Iskusstvo 15 No. 2, 1952

Monthly List of Russian Accessions, Library of Congress, August, 1952. Unclassified.

PA - 2833

AUTHOR: KHARYBIN,A.E.

TITLE: Analysis of Errors at Determining mean Value of the Random Magnitude and its mean-square Error Due to Finite Time of Observation. (Analiz oshibok v opredelenii srednego znacheniya sluchaynoy velichiny i yeye kvadrata, svyazannykh s konechnost'yu vremeni nablyudeniya, Russian)

PERIODICAL: Avtomatika i Telemekhanika, 1957, Vol 18, Nr 4, pp 304 - 314 (U.S.S.R.)

Received: 5 / 1957 Reviewed: 6 / 1957

ABSTRACT: The problem consists in finding such a value T of the time of observation, in which the relative mean square error σ will not exceed a certain value σ_{max}. The analysis of errors committed on the occasion of the determination of the mean value of the random magnitude and its dispersion, which are connected with the finity of the time of observation, is carried out. First, the probable mean square error and its relation to the correlation function is determined. Next, the observation interval according to the given error σ_{max} and according to the probable correlation function is determined. According to the formulae obtained nomograms were computed, with the aid of which it is possible to ascertain whether the observation interval was sufficient and whether it is possible to determine the probable mean square errors committed when determining the mean value

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PA - 2833

Analysis of Errors at Determining mean Value of the Random Magnitude and its mean-square Error Due to Finite Time of Observation.

of the random magnitude and its dispersion for a selected interval of observation. It is shown how to deal with the nomogram, and as a typical example the case is discussed, in which the correlation function of the random process may be represented in the following form:

$$R(\tau) = \sigma e^{-\alpha|\tau|} \cos \beta\tau$$

Here $\sigma = 10^{-2}$ or -40 db, $\alpha = 20$, $\beta = 40$.
(3 illustrations).

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED: 13.3.1956
AVAILABLE: Library of Congress.

Card 2/2

KHARYBIN, A.E.

PHASE I BOOK EXPLOITATION SOV/4884

Vysotskiy, Bogdan Fedorovich, and A. Ye. Kharybin

Radiolokatsionnyye ustroystva. Ch. 1: Osnovnyye voprosy proyektirovaniya (Radar Systems. Pt. 1: Basic Problems in Designing) Moscow, Oborongiz, 1960. 160 p. Errata slip inserted. 14,000 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy ordena Lenina aviatsionnyy institut imeni Sergo Ordzhonikidze.

Ed.: Yu. G. Zakharov, Candidate of Technical Sciences; Ed. of Publishing House: A.G. Kuznetsova; Tech. Ed.: V.I. Oreshkina; Managing Ed.: A.S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for students in advanced university courses of radio engineering. It can also be used by technical personnel in plants and design offices.

COVERAGE: The book examines the problems of designing radar apparatus. Methods of computation of the basic parameters of aviation radar equipment and of the

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Radar Systems. Pt.1 (Cont.) SOV/4884

characteristics of devices used in automatic search and tracking are reviewed. A description is presented of the special design features related to the installation of the apparatus in aircraft. Chapters I, II, and IV were written by B.F. Vysotskiy; Chapter III by A.I. Kharybin. The authors thank A.G. Saybel'. A.A. Gapeyev, V.N. Gorshunov, and P.A. Bakulev, Candidates of Technical Sciences, for their advice, and B.A. Voynich, Candidate of Technical Sciences, for his assistance in publishing the book. There are no references.

TABLE OF CONTENTS:

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ACC NR: AT6037050 SOURCE CODE: UR/0000/66/000/000/0134/0141

AUTHOR: Kharybin, A. Ye. (Candidate of technical sciences, Docent); Dzhavadov, G. G. (Candidate of technical sciences); Chertkov, N. I. (Engineer)

ORG: none

TITLE: The spectrum of an amplitude modulated sequence of video pulse packets

SOURCE: Moscow. Aviatsionnyy institut. Teoriya i tekhnika radiolokatsii (Radar theory and techniques); sbornik statey, no. 1. Moscow, Izd-vo Mashinostroyeniye, 1966, 134-141

TOPIC TAGS: radar, spectrum analysis, signal detection

ABSTRACT: The spectrum of an amplitude modulated sequence of video pulse packets is investigated for the case when the ratio of pulse repetition rate to packet repetition rate is a whole number or a fraction. Expressions are obtained for the amplitude of the modulation function's first harmonic. Relationships are established between the packet repetition rate and the pulse repetition rate inside a packet. When the ratio of pulse repetition rate to the switching frequency is even and also when this ratio is a fraction with an even numerator, the combination components of the spectrum do not fall on the useful signal frequency. When this ratio is odd and also when the ratio is a fraction with odd numerator values, the combination components of the spectrum fall on the signal frequency and may either increase the signal amplitude if the initial

UDC: 621.396.963.001(04)

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ACC NR: AT6037050

phases of the pulses and of the switching function coincide, or they may decrease the signal amplitude if the initial phases do not coincide. In order to avoid the superposition of combination components on the useful signal, it is necessary to provide for rigid synchronization between the pulse repetition rate and the switching rate. If this condition is not satisfied, a parasitic modulation of the signal will be produced by the superposition of the combination components. Orig. art. has: 2 figures, 12 formulas.

SUB CODE: 17,09/ SUBM DATE: 15Jul66/ ORIG REF: 003

Card 2/2

ACC NR: AT6037051 SOURCE CODE: UR/0000/66/000/000/0142/0147

AUTHOR: Kharybin, A. Ye. (Candidate of technical sciences, Docent)

ORG: none

TITLE: The transformation of the amplitude modulated periodic sequence of video pulses by means of a peak detector

SOURCE: Moscow. Aviatsionnyy institut. Teoriya i tekhnika radiolokatsii (Radar theory and techniques); sbornik statey, no. 1. Moscow, Izd-vo Mashinostroyeniye, 1966, 142-147

TOPIC TAGS: radar, radar navigation, spectrum analysis, frequency conversion

ABSTRACT: The use of a peak detector to transform the spectrum of a periodic sequence of rectangular video pulses, amplitude modulated in accordance with the sinusoidal law, is considered. Problems of this type are encountered in modern radar stations which have a single system of automatic direction tracking and in some pulse radio navigation systems. Expressions for the amplitude and phase of the spectrum components of the output signal with respect to the envelope of the input pulses are derived. Conditions are derived for selecting the parameters of the peak detector. Orig. art. has: 4 figures, 14 formulas.

SUB CODE: 17,09/ SUBM DATE: 15Jul66/ ORIG REF: 002

Card 1/1 UDC: 621.396.967.001(04)

KRYUKOV, G.N.; KHARYBIN, I.I.

Heat-treating furnace for the hardening of rails. Metallurg 6 no.6: 26-29 Je '61. (MIRA 14:5)

1. Starshiy master termicheskogo otdeleniya rel'sobalochnogo tsekha zavoda im. Dzerzhinskogo (for Kryukov). 2. Rukovoditel' prokatnoy gruppy teplotekhnicheskoy laboratorii zavoda im. Dzerzhinskogo (for Kharybin).
(Furnaces, Heat-treating) (Railroads--Rails)

ACCESSION NR: AP4040710 S/0203/64/004/003/0503/0508

AUTHOR: Tsedilina, Ye. Ye.; Khary*bina, A. A.

TITLE: Study of the nonhomogeneous structure of the ionosphere on the basis of radio observations of the artificial earth satellites Cosmos 1, Cosmos 2, and Cosmos 11 at coherent frequencies

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 3, 1964, 503-508

TOPIC TAGS: Cosmos 1, Cosmos 2, Cosmos 11, ionospheric inhomogeneity, artificial earth satellite, doppler shift, coherent frequency, ionospheric inhomogeneity, ionospheric inhomogeneity spectrum, coherent oscillation

ABSTRACT: The phase differences in the coherent oscillations radiated from Cosmos 1, Cosmos 2, and Cosmos 11 at 20.005 and 90.0225 mc were recorded in 1962 and 1963 at various Soviet stations. The recordings were made for various months and for different hours of the day. Measurement of these phase differences made it possible to obtain the ionospheric inhomogeneity spectrum W(ρ). Analysis of this spectrum

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showed that: 1) $W(\rho)$ has three steady maxima at $\rho_1 \sim 14—16$, $\rho_2 \sim 28—32$, and $\rho_3 \sim 90—110$ km; 2) apparently, the lengths of ρ_1, ρ_2, and ρ_3 do not depend on the hour of the day or season; 3) an investigation of the dependence of $W(\rho)$ on altitude revealed that the maximum number of inhomogeneities occurs at 50—100 km below the main maximum of the F_2 region; 4) the total number of inhomogeneities decreases with an increase in altitude; and 5) small-scale inhomogeneities — $\rho \sim 1$ km — have not been detected at altitudes above 350—400 km. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, AN SSSR)

SUBMITTED: 24Aug63 ATD PRESS: 3048 ENCL: 00

SUB CODE: OP, ES NO REF SOV: 005 OTHER: 001

Card: 2/2